

Work Order ID 134463

Wednesday, July 08, 2015 3:15:39 PM

134463

Page 1

Item ID: D412-783-011

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Gross Weight Towing Cable

Stop ***NS2***

Start Date: 7/04/15 Start Qty: 1.00

~~*1*~~
~~*1*~~ 2

Cust Item ID:

Required Date: 7/07/15 Req'd Qty: 1.00

Customer:

Reference:

Approvals:

Process Plan: MUS

Date: JUL 10 2015

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3943	E								
IIN-D412-783	C								

100

Document Control

0.00

100

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPPD412-783-011 CHG 004

DAS
02
9-89

AUG 24 2015

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

2X
DAS
27
AUG 17 2015

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Work Order ID 134463

Wednesday, July 08, 2015 3:15:39 PM

134463

Page 2

Item ID: D412-783-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Gross Weight Towing Cable

Start Date: 7/04/15 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 7/07/15 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC4- 100% Inspect kits for completeness	0.00							DAS 02 9-89
120									
QC	Memo	0.00							
Quality Control	***ENSURE CALIBRATION CERT. IS IN IIN PAPER WORK***								
									AUG 24 2015
130		0.00							
130									DAS 02 9-89
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D412-783-011								
	Location: <u>FG129</u>								
	PPP Rev: _____								
									AUG 24 2015
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									MLS AUG 24 2015

SW 20150824
20150824

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Picklist Print

Wednesday, July 08, 2015 3:15:38 PM

Page 1

Work Order ID: 134463

134463

Parent Item: D412-783-011

D412-783-011

Parent Item Name: Gross Weight Towing Cable

Start Date: 7/04/15

Required Date: 7/07/15

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A New Issue 09-06-02 JLM Verified By:EC IPP Rev:B
@ chg 002 DD 10.02.22 Verified By:EC IPP Rev:C @ chg 004
DD 11.08.15 DD verf:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3943-041		Manufactured	No			110	Each	1.0000	1	2			
D3943-041									**			DAS 27 9-89	DAS 9-89
Ground Handling Crank Assembly													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				PKG				1		B134997			
					120032			1					
D3951-041		Manufactured	No			110	Each	12.0000	1	2			
D3951-041									**			DAS 27 9-89	DAS 9-89
Equipment Bag Assembly													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST431				12					
					114366			4					
					120500			8					
D3954-1		Manufactured	No			110	Each	26.0000	2	4			
D3954-1									**			DAS 27 9-89	DAS 9-89
Gwt Pin													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST070				26					
					102473			25					
					70030			1					
D3954-3		Manufactured	No			110	Each	6.0000	2	4			
D3954-3									**			DAS 27 9-89	DAS 9-89
Gwt Knob													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST070				6					
					119384			6		B134324			
										B135403			
										2			
										2			

AUG 17 2015

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only ☐

Work Order: <u>134463</u>	DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No. <u>D412-783-011</u>	Rework ☐	Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐			
NCR No. <u>15-5426</u>	Scrap ☒	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐			
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐			
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☒				
Date: <u>15-08-24</u>	Step #: <u>100</u>	QTY Effective: <u>2</u>			MRB (QSI042) Approval			
Description Work Order Deviation		Disposition			Completed By			
Zippers found to be defective on D3591-041		Scrap + Destroy Qty of x2			15-08-24			
3 120500 duffel bag Qty of x2					Lead hand / Supervisor Approval Verification			
					DAS 9 9-89 1508-24			
					QC / QA Coordinator Approval			
					DAS 9 9-89 1508-24			
Root Cause		FAULT CATEGORY						
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	Supplier ☒	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☒	Misread ☐			
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	Manufacturing Process ☐							
Misidentified ☐	Past Due ☐	OTHER :						

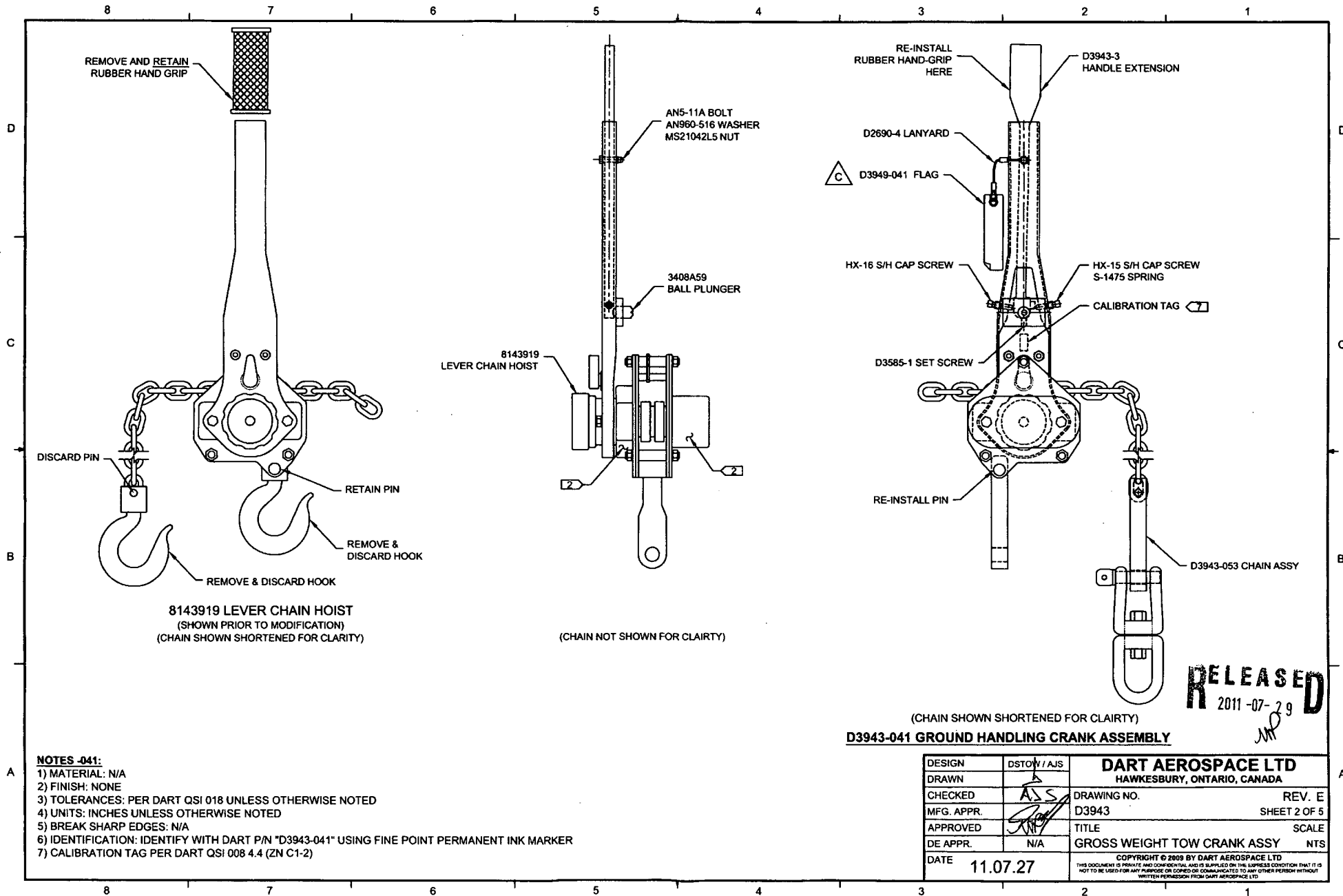
ITEM No.	QTY -041	QTY -051	QTY -053	PART NUMBER	DESCRIPTION	PREFERRED SUPPLIER
1	X			D3943-041	GROUND HANDLING CRANK ASSEMBLY	
5	1	X		D3943-051	HANDLE ASSEMBLY	
6	1		X	D3943-053	CHAIN ASSEMBLY	
11		1		D3943-1	HANDLE	M/F HANDLE FROM DIS-ASSEMBLED ITEM 39
12	1			D3943-3	HANDLE EXTENSION	
13		1		D3943-5	PLATE	
14		2		D3943-7	STUD	
15			1	D3943-9	CHAIN	USE CHAIN SUPPLIED WITH ITEM 39
16			1	D4405-1	EYE AND FORK SWIVEL	
21	1			D2690-4	LANYARD	
22	1			D3585-1	SET SCREW	
23	1			D3949-041	REMOVE BEFORE FLIGHT FLAG	
24			1	D3954-5	CHAIN LUG	
25	1			D3954-7	RATCHET LUG	
26			1	D3954-9	GWT CHAIN PIN	
31	1			AN5-11A	BOLT	
32	1			AN960-516	WASHER	
33	1			MS21042L5	NUT	
39	1			8143919	LEVER CHAIN HOIST (POWER FIST)	PRINCESS AUTO / 4000 lbs CAPACITY
51	1			S-1475	SPRING	REID SUPPLY
52	1			3408A59	BALL PLUNGER	McMASTER CARR
53	1			HX-15	SOCKET HEAD CAP SCREW 1/4-20 UNC X 0.75 LG	HASKINS
54	1			HX-16	SOCKET HEAD CAP SCREW 1/4-20 UNC X 1.0 LG	HASKINS

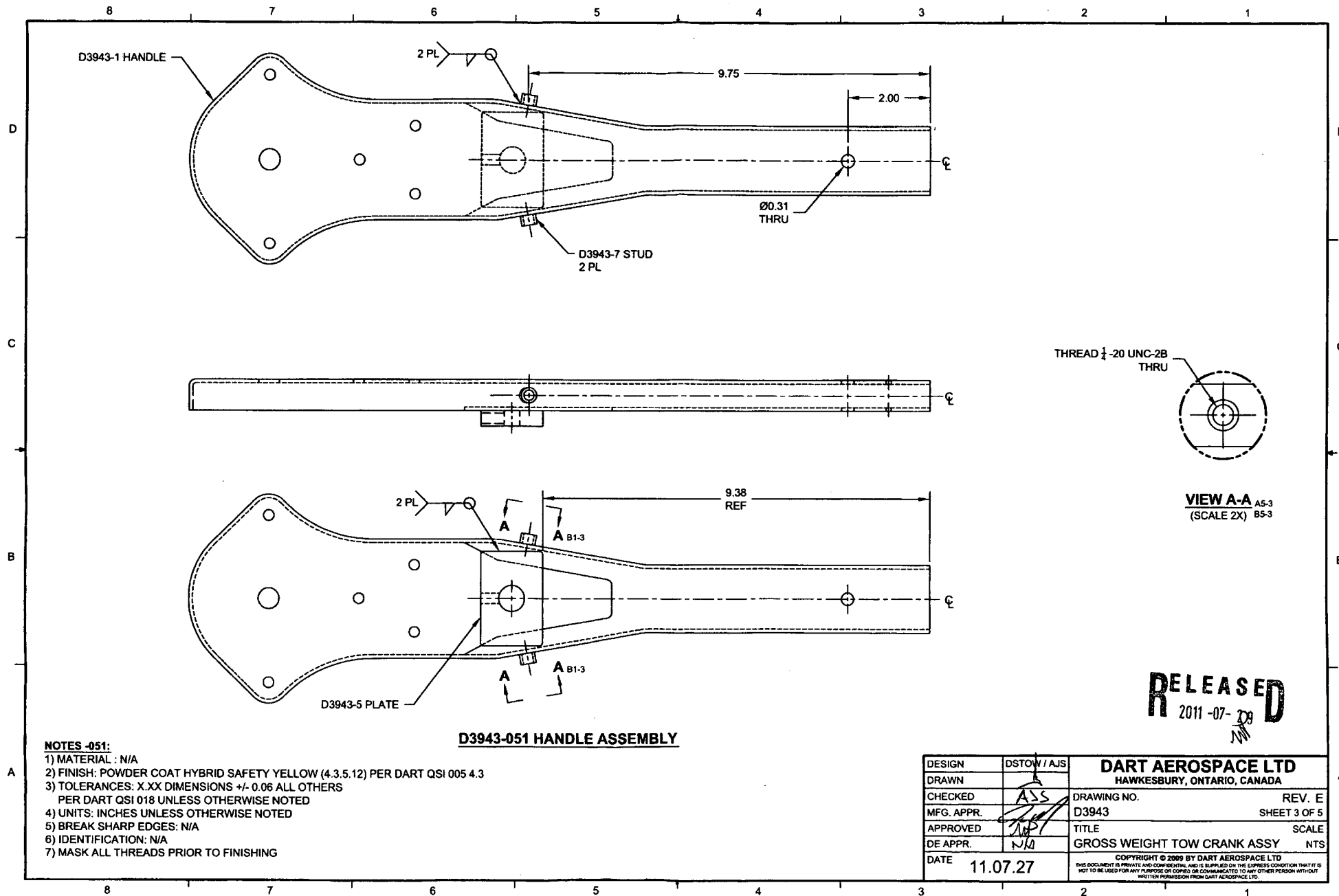
SHOP COPY
RETURN TO
ENGINEERING
CONTROLLED COPY
FOR FINAL FIDEMENT
FOR SERVICE
FOR SUPER

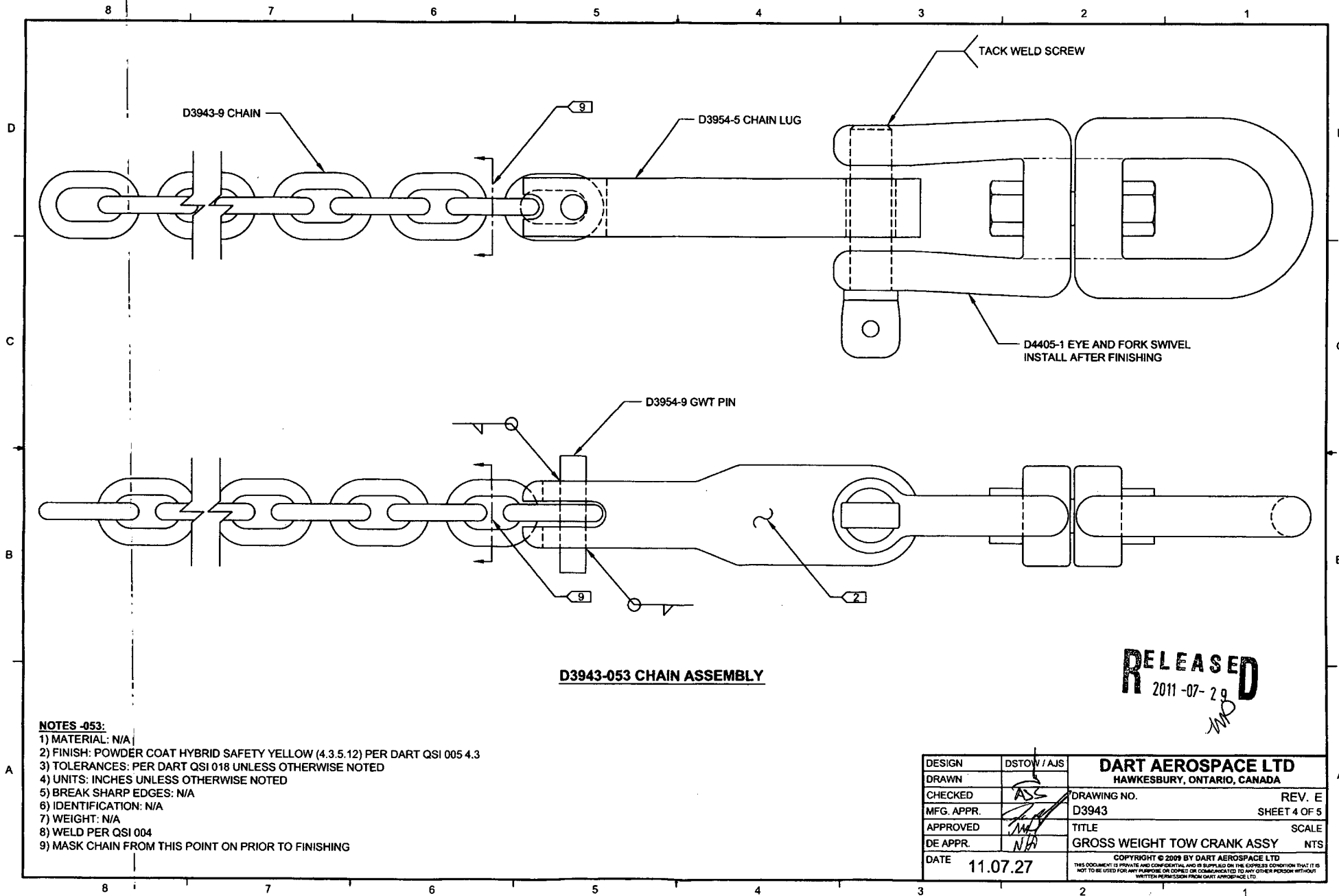
134463_MLS
1507-10

RELEASED
2011-07-29
MW

E	CHANGED D3945-3 MAT'L TO SS (B8-5); FINISH NOW "NONE" (A7-5); TAP DRILL FOR 1/4-20 UNF-2B WAS PILOT HOLE NOTE (B1-5). PER PAR11-113.	MB	11.07.27
D	SHT 1 PL, ITEMS 51-54 RENUMBERED SEE PREV. REV. FOR DETAILS, ITEM 16 ADDED (VIEWS UPDATED), SHT 2 ZN D3 FLAG RELOCATED. SHT 3 ZONE D3, Ø0.12 HOLE DELETED. (SEE NCR 11-495)	AJS	11.05.16
C	RMV FINISH -041 (ZN A8-2), ADD NEW FINISH -051/-053/-1/-3 (A8-3/-4/-5), ADD CALIBRATION (A8-2), (1) HX-16 WAS HX-15 (B3-1, C3-1), PAR 10-001	CP	10.01.26
B	SHT 1 PL, ITEM 31 WAS AN4-10A, ITEM 32 WAS AN960-416, ITEM 33 WAS MS21042-4, ITEM 43 WAS 0.75 LG. SHEETS 2 - 5 NOTES: FINISH FOR ALL COMPONENTS NOW YELLOW SPRAY PAINT.	AJS	09.10.15
A	NEW ISSUE	AJS	09.05.13
REV.	DESCRIPTION	BY	DATE
DESIGN	DSTW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3943 REV. E SHEET 1 OF 5 TITLE GROSS WEIGHT TOW CRANK ASSY NTS COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN			
CHECKED	ASS		
MFG. APPR.			
APPROVED			
DE APPR.	N/A		
DATE	11.07.27		



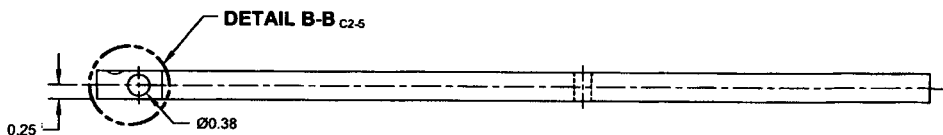
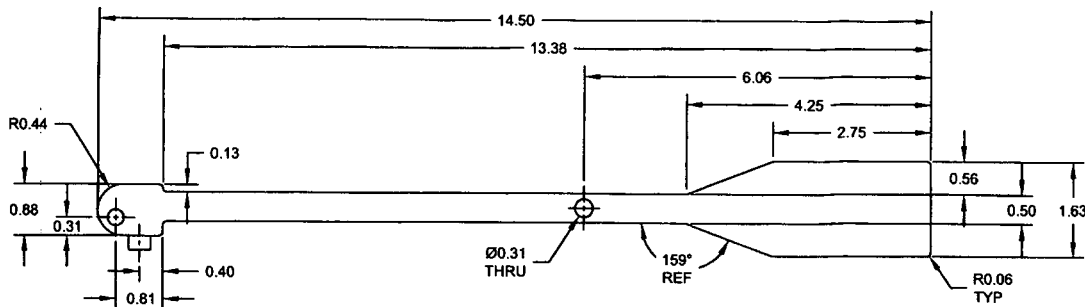




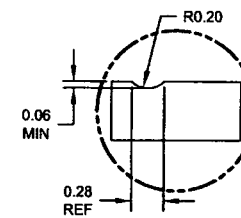
RELEASED
2011-07-29
MD

DESIGN	DSTOW / AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN		DRAWING NO.	REV. E
CHECKED	ASS	D3943	SHEET 4 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		GROSS WEIGHT TOW CRANK ASSY	NTS
DE APPR.	N/A	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
DATE	11.07.27	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1



D3943-3 HANDLE EXTENSION



NOTES:

1) MATERIAL -3: AISI 304/316 STAINLESS STEEL SHEET
ANNEALED 2B FINISH PER MIL-S-5059
OR AMS 5513 (304) OR AMS 5524 (316)
OR ASTM A240 OR ASME SA240
REF DART SPEC M304S
OR:

AISI 303 STAINLESS STEEL SHEET
ANNEALED 2B FINISH PER MIL-S-5059
ASTM A240 OR ASME SA240
REF DART SPEC M303S

-5: MILD STEEL, SHEET

AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S
OR:

MILD STEEL, BAR

AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B

-7: MILD STEEL, ROUND BAR

AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R

2) FINISH: NONE

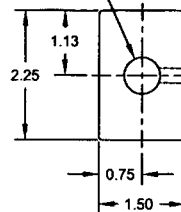
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

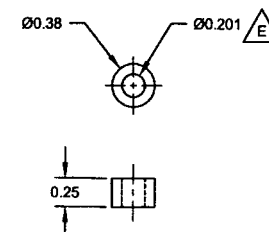
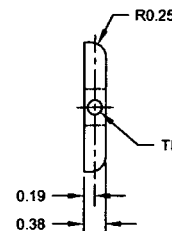
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: N/A

THREAD $\frac{1}{8}$ -11 UNC-2B



D3943-5 PLATE



D3943-7 STUD
(SCALE 2X)

RELEASED
2011-07-29

DESIGN	DSTOW / AJS	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	REV. E
MFG. APPR.		D3943	SHEET 5 OF 5
APPROVED	W	TITLE	SCALE
DE APPR.	N/A	GROSS WEIGHT TOW CRANK ASSY NTS	
DATE	11.07.27	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.			

Work Order ID 134463

134463

Wednesday, July 08, 2015 3:15:39 PM

Item ID: D412-783-011

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Gross Weight Towing Cable

Start Date: 7/04/15 Start Qty: 1.00

Cust Item ID:

Required Date: 7/07/15 Req'd Qty: 1.00

Customer:

Reference:

Run Start ***NR1***

Approvals: Process Plan: MLJ Date: JUL 10 2015 Tooling: _____ Date: _____

Stop ***NR2***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3943	E								
IIN-D412-783	C								
100	Document Control	0.00							
100		0.00							
DC	Memo								
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPPD412-783-011 CHG 004								
110	Pick Kit	0.00							
110		0.00							
Packaging	Memo								
Packaging									

D412-783-011

MLJ AUG 17 2015

2X D412-783-011 AUG 17 2015